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THE SCHOOL OF MEDICINE

Department of Pediatrics
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Dear Josh :-

Just a few words to tell you about some things I've done on K-12 at the Pasteur Institute. I used Jacques strain for some studies on uronic acid metabolism (simultaneous adaptation tests) because it gave the most marked glucose - l-arabinose diauxie of any that I've tested. I've a fair amount of quantitative growth data on glucose, uronic acid, and pentose singly or in mixtures. In glucose-uronate mixtures you have 2 ~~exp~~ exponential curves without a lag between them. There is synthesis of adaptive enzymes for uronate in the glucose phase without significant utilization of uronate. Uronate obliterates the diauxie in glucose-pentose mixtures.

Adaptation to galacturonate does not produce simultaneous adaptation (by growth, O_2 consumption, or fermentation) to galactose or l-arabinose. K-12 grown in glucose oxidizes galactose at 30% of the glucose rate. Adaptation to galactose or l-arabinose produces no significant cross adaptation - this is in contradiction to one of your letters to Jacques.

I've written up a paper which is being typed. There's nothing on crossing. If you're interested and/or wish to discuss the above, let me know and I'll try to send a

Sincerely yours

Samuel Cohen